PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-167	**FOR FURTHER ACTION**	See Form PCT/IPEA/416
International application No. PCT/ES2004/070049	International filing date *(day/month/year)* 09.07.2004	Priority date *(day/month/year)* 11.07.2003
International Patent Classification (IPC) or national classification and IPC C07C51/41		
Applicant NOREL, S.A. et al.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☐ *sent to the applicant and to the International Bureau)* a total of sheets, as follows:
      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
11.05.2005	14.09.2005
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Bertrand, F Telephone No. +49 89 2399-8606

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/ES2004/070049

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
   - ☐ international search (under Rules 12.3 and 23.1(b))
   - ☐ publication of the international application (under Rule 12.4)
   - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

   Description, Pages

   1-62 as originally filed

   Claims, Numbers

   1-52 as originally filed

   ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

* *If item 4 applies, some or all of these sheets may be marked "superseded."*

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	4-5,15,17-52
	No:	Claims	1-3,6-14,16
Inventive step (IS)	Yes:	Claims	26-52
	No:	Claims	1-25
Industrial applicability (IA)	Yes:	Claims	1-52
	No:	Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item I
Basis of the report

The documents mentioned herein are numbered in accordance with the order they appear in the International Search Report.

Re Item V
Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

the present invention relates to organic Zn or Cu complexes with carboxylic acids and possibly with aminoates.

The preparation process according to the present claims 1-3, 6-14 and 16 is disclosed in D1, which therefore anticipates the present application. It should be noted that although some technical features, e.g. 1-5 minutes stirring according to the present claim 12 are not explicitly mentioned in D1, it can be reasonably assumed that these features were actually present in the prior art. If this was not the case, the applicant carries the burden of proof. Moreover, such a feature must contribute to the invention in order to be considered for a possible distinction over the prior art. In other words, a given feature must be different from the one used in the art and this difference must have a positive effect on the result. The other features of the remaining, new part of the present claims 1-16 do not appear to provide for any surprising effect, e.g. using butyrate instead of propionate or copper hydroxide instead of copper carbonate can be expected to yield the same result *mutatis mutandis*.

The cited prior art does not mention powdery Zn or Cu formate or butyrate with a given purity. Novelty of the present claims 17-20 is thus acknowledged. Novelty of the corresponding use claims 21-25 is also acknowledged. However, the alternative with respect to D1 is obvious as far as organic Zn is known to provide for an improved effect over inorganic Zn (see D6). The replacement of e.g. a propionate with a butyrate is a priori not expected to have dramatic consequences on growth. No surprising effect has been shown so far.

The applicant's attention is drawn to the fact that the way these powders are obtained is of no relevance. If anybody can prove that e.g. Cu formate powder of over 85% purity was available

to the public before the relevant date, the novelty of the corresponding claim would be taken away.

The subject-matter of the present claims 26-52 is considered as new and involving an inventive step, since the cited prior art compares aminoates with carboxylates but does not mix them. Some of the experimental data of the present examples show that a better efficiency of metal absorption is achieved for a same amount of metallic salt when administered as a complex of carboxylate and aminoate in comparison with aminoates or carboxylates alone.